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III. Remarks

There are 21 claims pending in this application. Claim 1 is independent. Reconsideration and allowance of the present application is respectfully requested.

Applicant has amended claim 1 to incorporate the subject matter of claim 3 in order to more clearly define the uniform pressure applied to the stack that does not vary more than 10% at any two points along the surface of the stack. No new matter has been added by way of this amendment.

In paragraph 4 of the outstanding Office Action, the Examiner has rejected claims 1-22 under 35 U.S.C. §112. The Examiner states that the language "moving a periphery of said stack in a direction toward a center thereof while maintaining the thickness of the stack" is not clearly supported in the original disclosure. The Examiner suggested that the language be replaced by the phrase "moving a periphery of said stack in a direction toward a center thereof as the die press is closed to the forming position having said uniform gap".

Applicant has amended the language of claim 1 as per the Examiner's suggestion in order to expedite prosecution of this application. However, Applicant submits that the change in language does not alter the scope of pending claim 1. Further, Applicant has amended the specification in order to include supporting language. However, Applicant submits that such language was already clearly supported, in particular, as shown in the figures of the application, as previously stated in the response to the previous Office Action filed March 15, 2006. Applicant submits that due to the amendment of the claims in accordance with the Examiner's suggestion, the Examiner's objection is now moot.

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In paragraphs 1-3 the Examiner has rejected claims 1-22 under 35 U.S.C. §103(a). The claims have been rejected as being purportedly unpatentable over United States Patent 5,985,457 [Clifford] or PCT WO 00/48831, further taken with any one of Japanese Patent 11-151530, Japanese Patent 11-347642 or United States Patent 6,032,504 [Onat], further taken with either one of Kojima et al. or Japanese Patent 58-252216. Further, the Examiner has rejected claims 1-22 as being unpatentable under 35 U.S.C. §103(a) over the references stated above further taken with Hook et al. or Hirota et al.

Applicant's arguments as to why the pending claims contain subject matter that is patentable over the cited references has been previously put forward in the response filed March 15, 2006. Applicant maintains these arguments and further submits the following arguments in support of the patentability of the pending claims.

The Examiner has cited PCT '831 or Clifford in support of the knowledge *per se* to join a pair of metal skins together with a paper core of resin impregnated paper in order to manufacture a vehicle body panel. The Examiner has acknowledged that neither PCT '831 or Clifford suggest the use of the incorporation of a press to shape the panel to form a vehicle body part wherein one employed a die press to press the assembly to make the panel. The Examiner has stated that Japanese Patent 11-151530, Japanese Patent 11-347642 or Onat et al. suggest the use of manufacturing a vehicle body part by shaping the panels by a die press incorporation in a mold. The Examiner has acknowledged that the material used to form such panels in these references is that of sheet metal material. Applicant further reiterates that there is no suggestion in any of these three references to the use of a panel formed by metal skins together with a paper core. The Examiner has suggested that a person skilled in the art would use the panels discussed

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in Clifford and PCT '831 within the process described in Japanese Patent 11-151530, Japanese Patent 11-347642 or Onat et al. The Examiner suggests that a person skilled in the art would combine the teaching of these prior art references and would result in the invention taught in the pending application.

Applicant respectfully disagrees for the reasons outlined below.

Applicant submitted in the March 2006 response the well established case law on the issue of showing a *prima facie* case of obviousness. Applicant's discussion below of the pending claims of the application will show there is no reasonable suggestion in any of the teaching of the prior art whether taken alone or combined to produce Applicant's claimed invention.

As clearly stated in pending claim 1, the invention of the present application is directed to a process for forming a composite part in a die press. A composite part is formed from the pair of sheet metal skins and a paper layer impregnated with resin disposed between and in contact with these skins of the sheet metal. The process of forming the composite part includes the steps of (i) disposing a composite stack in the open position where the stack comprises the pair of sheet metal skins with the paper core layer disposed between the skins; (ii) causing the die press to transition from an open to a closed position; (iii) applying a uniform pressure to the stack for a sufficient amount of time to bond the skins and paper layer while forming a non-planar part where the uniform pressure does not vary more than 10% at any two points along the surface of the stack; (iv) moving a periphery of the stack in a direction towards the center as the die press is closed to the forming position; and (v) contacting the entire surface

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of the stack with the die press. Applicant submits that it is clear from the claim language that the process involves applying a uniform pressure across the stack wherein the uniform pressure does not vary more than 10% at any two points along the surface. As noted in the specification, in particular in paragraph 30, there is a discussion of the substantially equal pressure, i.e. uniform pressure, that should be maintained between the die faces and the surfaces of the metal skins. In particular, the specification states "in terms of pressure, no two regions of article 20 should vary from one another by more than 10%".

As acknowledged by the Examiner there is no discussion in PCT '831 or Clifford with regards to the use of the die press to form a panel. Therefore clearly there is no suggestion or teaching within these references to describe either the use of the die press and, in particular, the use of the uniform pressure applied within a die press.

Further, Applicant submits that none of the remaining cited references when taken either alone or combined suggest the inclusion of the application of uniform pressure during the die and pressing operation. In particular, there is no discussion or suggestion of the use of a uniform pressure that does not vary more than 10% of any two points along the surface of said stack.

As described in the pending application in paragraph 27 the process of the pending application involves the method of simultaneous lamination and forming of the panel within the die press. The lamination including the step of heating and curing the resin within the paper layer to the metal skins formed around the paper layer. The process that includes the simultaneous lamination and forming of the panel occurs during the application of the uniform

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pressure in the die press. Since there is no suggestion or teaching in any one of the cited references that discuss the shaping of a panel via a die press where the panel has several layers including two peripheral metal skins enclosing a paper layer that requires lamination there cannot be any discussion of a simultaneous lamination/forming step for such a panel. Therefore, Applicant submits that there is no prior art disclosure of the application of a uniform pressure on the composite stack as taught by Applicant's pending claim.

Further in support of Applicant's arguments the specification states at paragraph 29 that "while metal forming does not generally require a uniform pressure be applied to all regions of contact between die surfaces it has been discovered that maintaining such a uniform pressure is desirable in a simultaneous lamination/forming operation of said composite parts as described herein". Therefore, Applicant's specification clearly references the prior art use of die pressing that does not require uniform pressure to be applied to the parts. In contrast, and as claimed, Applicant has surprisingly found that the application of uniform pressure maintained across the stack aids in the simultaneous lamination/forming operation for the composite stack that comprises the pair of sheet metal skins enclosing a paper core layer. Applicant submits that none of the cited prior art references taken alone or combined teach the specific process identified in Applicant's pending claim 1.

The second rejection of claims 1-22 under 35 U.S.C. §103(a) is a repeat of the first rejection further taken with United States Patent 4,080,819 [Hook et al.] or United States Patent 4,225,553 [Hirota et al.]. This rejection is traversed for the reasons cited above. Reconsideration is requested in light of the above remarks.


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In light of the above, reconsideration and allowance of the present application is respectfully requested.

Applicant's undersigned agent may be reached by telephone at (416) 862-4312.

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Respectfully submitted,


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